

# A Meta-Analysis of Multimedia Program Effectiveness Research on Listening Comprehension

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## Abstract

**Research Purpose:** While investigating the different characteristics of educational technology enhancing language learning, it is shown that using multimedia in classroom is consistently superior to all-lecture approaches and allows learners to expose in authentic material, saving learning time and performing better than traditional lectures. In previous studies, few of them presented a synthesis of studies; therefore, this article summarizes a comprehensive synthesis of experimental intervention studies to explore the effectiveness of the modalities of multimedia.

**Research Method:** The modalities of interventions on instructional components included types and order of captioning languages, listening strategy instructions, Computers and Language Learning (CALL). Effect sizes for a corpus of 27 intervention studies were analyzed across instructional domains, subgroup sample characteristics, intervention parameters, and methodological procedures.

**Research Result:** The overall mean effect size of multimedia instruction intervention was positive. The meta-analysis of studies controlling for captioning status indicates a positive effect of high magnitude for captioning native language and target language. Effect sizes were more positive for a combined model that included components of using multimedia with subtitles and instructing listening strategies before class than for competing models simply conducted in lectures. Interventions that varied from control conditions in terms of teaching material, strategies, and arrangements of instructional interventions yielded larger effect sizes than studies that failed to control for such variations.

**Conclusion :** The results are supportive of the all-pervasive influence of captioning multimedia teaching material, listening strategy instructions and CALL instruction models for promoting the language performance on listening comprehension.

**Keywords:** multimedia; meta-analysis; listening comprehension; listening strategy; subtitle